

ATTACHMENT A

Remarks

In the detailed portion of the outstanding Office Action, under the *Claim Rejections - 35 USC § 103* section, independent claim 23 was rejected under as being obvious over Tokoro in view of Baur. However, for the following reasons, it is submitted that this claim is allowable over this combination of references.

In the action, the Examiner accepts that Tokoro does not disclose specifications for the thermal expansion and thermoelastic coefficients, but alleges it would be obvious to select these coefficients to realize the compensation mentioned in claim 23 based on the disclosure of Baur. This allegation is not correct for at least the following for two reasons.

Firstly, the teachings of Baur and Tokoro are physically incompatible. Baur relates to the properties of a specific Nb-Hf alloy. This alloy is special because it has an abnormal positive thermal evolution of Young's modulus (TCE) (see e.g. column 1, lines 8-14 and column 2, lines 49-51). It is through this abnormal property that compensation can take place - see column 3, lines 50-56. In complete contrast it is well known that carbon nanofibers in a carbonized resin matrix, such as those used for the spring in Tokoro (see paragraph 0046), have a normal negative TCE. Given a brass balance wheel such as that disclosed in Tokoro (see paragraph 0037), a person of ordinary skill would realize that it is in fact impossible to apply Baur's teaching to achieve the cooperation between coefficients recited in claim 23 that enables compensation to take place. In the prior art the compensation expression in Baur was always associated with abnormal positive TCEs. The invention in the present application overcomes that prejudice.

Secondly, the tuning of thermal properties in Baur is achieved by altering alloy composition. Such a tuning is not obviously applicable to carbon nanofibers. Indeed nowhere in

the cited documents is it suggested that the thermal properties of carbon nanofibers can be tuned, let alone how that might be achieved. A person of ordinary skill would certainly not consider a document concerning paramagnetic metal alloys when looking for information about carbon nanofibers.

Therefore, for all of the foregoing reasons, it is submitted that independent claim 23 is allowable over the noted combination of Tokoro and Baur.

In the Action, it was (again) indicated that the remaining claims, claims 1-22, were allowable. This indication of allowable subject matter is (again) appreciated.

As all claims in the application are allowable as noted above, it is submitted that the present application is in condition for allowance and such action is solicited.